

ARITHMETIC APPARATUS AND ARITHMETIC METHODABSTRACT OF THE DISCLOSURE

An arithmetic apparatus and an arithmetic method  
5 capable of executing arithmetic by reconfigurable  
hardware, shortening a processing time of arithmetic  
including conditional branches causing a heavy processing  
load and improving a processing speed even when  
conditional branches exist in a loop of performing  
10 repeating arithmetic processing, wherein arithmetic  
processing including conditional branches is divided to  
first processing of unconditional branches and second  
processing with conditional branches, the first  
processing of unconditional branches is assigned to  
15 reconfigurable arithmetic means, configuration  
information of hardware is generated based on the first  
processing, the first processing is executed by the  
reconfigured arithmetic means based on the configuration  
information, the second processing with conditional  
20 branches is assigned to a CPU or other arithmetic means,  
the assigned second processing with conditional branches  
is executed by the CPU, and a result of the processing is  
used for correcting a result of said first processing, so  
that a result of arithmetic processing including  
25 conditional branches is obtained.